



FOSSopolis

Open Source Online RPG

Presented by

AJ Mandula, Piper Chester, Timothy Reynolds,
David Gay, Francis Yuan

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Evolution of the Game's Goal

Original Goals from Red Hat	Evolved Goals between Game Team and Red hat
<ul style="list-style-type: none">• Educational Experience• Getting people interested and involved with <u>Fedora</u>• Wholly open source• Encourage crucial Fedora Project improvements	<ul style="list-style-type: none">• More traditional <u>RPG</u> game• Encourage all <u>FOSS</u> development• Still fun, still open source

The Importance of Research

- Research was crucial to our design since out-of-game data is rare within games, especially in an RPG.
- Out-of-game data is usually beyond the control of the developers, careful balancing is required to make it fun for the players.



Final Goals and Finished Work

- Research and design an RPG that encourages and rewards FOSS development
- Retain the important aspects of balance and fun within the game experience while integrating FOSS data
- Create a set of documents to support future developers

Research: Starting Questions



Initial research focused on 5 questions

- Design issues in massively multiplayer online RPG, virtual worlds and social games
- User-generated content in MMOs
- Player-driven events in MMOs
- Character advancement in Social Games and Alternate Reality Games
- Balancing in-game boosts from external activities

Research: Designing Online Games

MMO	<u>Player vs Environment</u> , <u>Player vs Player</u> , <u>Classes</u> , Combat, Story
Virtual World	Virtual Land, User-Generated Content
Social Game	Social Gameplay, Social Network Integration
Shared	Player Identity, Tasks, Communication, Economy, User Interface, <u>Monetization</u>

Research: Character Advancement



Social Network Games

- Quick leveling to give illusion of progress
- Obvious goals and achievements to pursue

Alternate Reality Games

- Advancement measured by story progression
- Usually a community effort

Research: User-Generated Content



Examples

- Players can abuse UGC maps to reach the level cap faster than intended, unless the UGC was modified by developers

Problems

- Quality Control
- Legal issues over ownership
- Balancing

Research: Player-Driven Events

- Example: Celebrating a holiday in-game ([World of Warcraft's Winter Festival](#))

Strengths	Weaknesses
<ul style="list-style-type: none">• Organic and spontaneous• Creates historical landmarks for community• No work on the developer's part	<ul style="list-style-type: none">• Can break the game and ruin other players' experience• Outside of the control of the developer



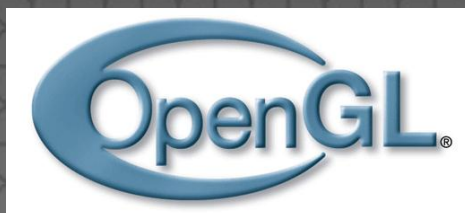
Research: Balancing Boosts

- Example
 - Farmville boosts can be bought with real money, substituting hours of in-game effort for a monetary amount
- Very important to game experience
- Temporary boosts better balance players
- Boosts should not be crucial elements to progression through the game

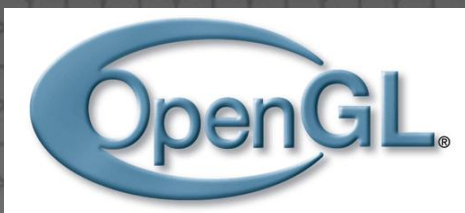
Games and Sources



Technologies



Technologies



Putting Everything Together



Our complete research formed the backbone for our game design. Our weekly process was:

- Preliminary topic discussion
- Brainstorming session
- Fleshing out and Testing

Spent a substantial amount of time and research on balancing the game

Developed paper prototypes which tested mechanics and balance as they were integrated into the design

Playtestathon

Three hour event where we tested our combat and skills selection paper prototypes on other students and their family/friends.

- Combat prototype created a turn-based replica of the height-based combat system for testers to experiment with
- Skill selection prototype allows testers to select what skills they would like to upgrade with their character



Core Game Features

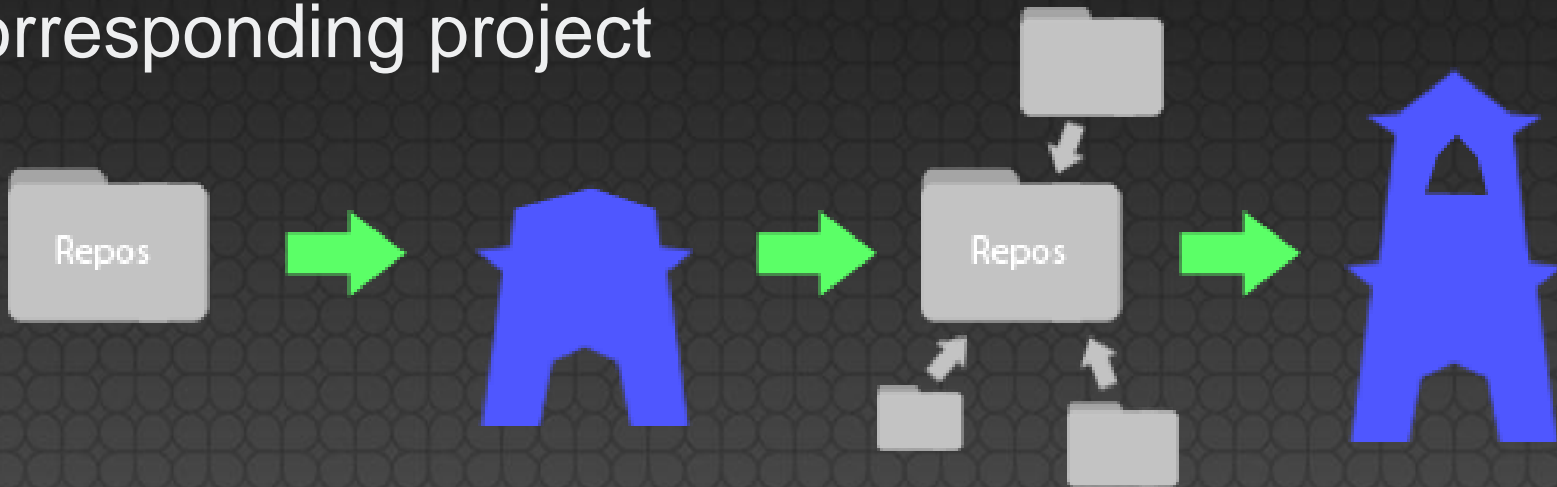
- 2D side-scrolling MMORPG
- Classless design
- Platforming based exploration
- Unique combat system



Scene from *Machinarium* by Amanita Design

FOSS Integration Points

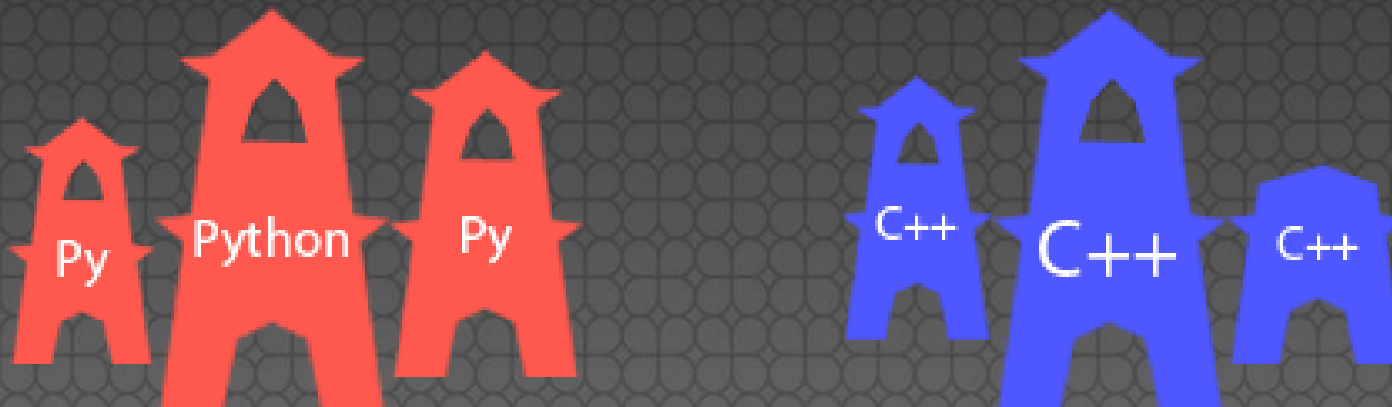
- Project towers, or dungeons, grow with activity on their corresponding project



- Item rewards for contributions of code, documentation or visuals, with a unique reward for every type of contribution

FOSS Integration Points

- Temporary stat boosts for general activity such as committing, forking, acquiring followers
- Regions divided based on languages and the repositories of that type of language
- Linked languages are linked within the game



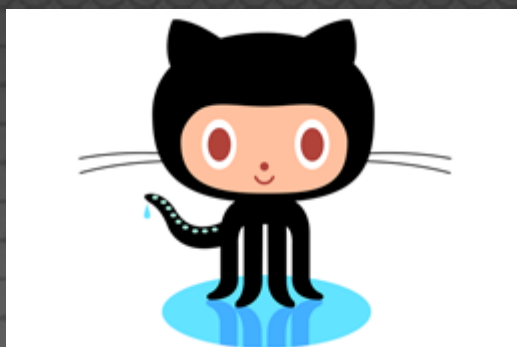
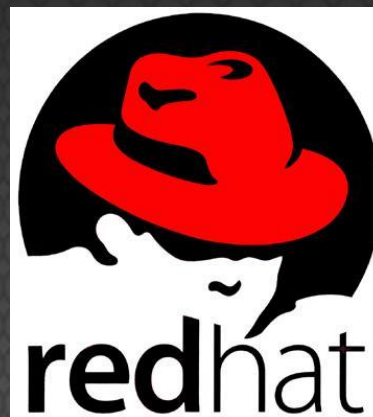
Challenges Faced



Challenges	Solutions
<ul style="list-style-type: none">• Players making commits of useless code in order to build their own tower• Dummy commits can also be exploited for rewards and boosts• Throwaway accounts to facilitate the above two exploits	<ul style="list-style-type: none">• A team dedicated to policing players in-game• Stricter moderation on the sites we will be drawing data from• Crowdsourcing the anti-exploit work to the players, rewards for identifying bad repos

FOSS Community Support

- Various “mentor” companies have guided us
- Thank You!



Codecademy

Charsheet

Web application that generates a developer character sheet based on external metrics, built on Pyramid and powered by Python.



Charsheet

Charsheet

Generate your developer character sheet by completing fields in the form to the right.

Skip services you do not have an account for.

Report bugs and submit feature requests [here](#).

Coderwall Achievements



Recent GitHub Activity

IT/surf-2012.

IT/surf-2012.

o Ohloh position in the FOSSRIT/surf-2012 repo.



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Accounts

Master

Master field autocompletes next three.

GitHub

Ohloh

Coderwall

Fedora Account
System (FAS)


FAS Password

Stack Exchange
ID

stackexchange.com/users/ID/USERNAME

Generate

Charsheet



oddshocks

Name: David Gay

Email: oddshocks@gmail.com

IRC: oddshocks

Foo: 16

Foo Bar:

Foo Bar

Your Foo Bar shows your progress towards the next level of Foo.

78% to next level

Strength: 46

Dexterity: 25

Wisdom: 6

Leadership: 2

Attributes

Stat Calculations

Strength	Determined by lines in GitHub repos, questions answered on Stack Exchange, and number of Coderwall badges.
Dexterity	Determined by GitHub language variety and variety of tags on all answered Stack Exchange questions.
Wisdom	Determined by the age of the oldest linked account between GitHub, Ohloh, and Stack Exchange.
Leadership	Determined by the number of times your GitHub repos have been forked and the amount of accepted answers you have given on Stack Exchange.
Determination	Determined by the number of repos in your GitHub account.
Popularity	Determined by the number of GitHub followers you have and your total Stack Exchange reputation.
Language Skills	Equal to 1 rank for every 2,000 lines of that language in all GitHub repos.

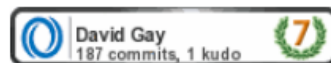
Charsheet

Statistics

Public GitHub
Repos: 14

Total Lines in
Repos: 3,231,864

Ohloh
Profile:



Ohloh
Rank: 65269

Coderwall Endorsements: 2

Charsheet

Coderwall Achievements



Python 3
Have at least three original repos where Python is the dominant language.



Recent GitHub Activity

[Less](#)

[More](#)

Pushed 2 commit(s) to FOSSRIT/charsheet.

Pushed 1 commit(s) to FOSSRIT/charsheet.

Opened issue Close all 15 bugs in old repo in the FOSSRIT/charsheet repo.

Created branch gnu-cat in the FOSSRIT/charsheet repo.

Q/A

.Links

GitHub Repo: <https://github.com/FOSSRIT/surf-2012>

Facebook: <http://on.fb.me/Rx3TK7>

Twitter: <https://twitter.com/FOSSRIT>

FOSS@RIT: <http://foss.rit.edu/projects/FOSSSGM>

IRC: #rit-foss on freenode

Email: remyd@civx.us

Timothy Reynolds - <http://foss.rit.edu/blog/1671>

Piper Chester - <http://pipersurf.wordpress.com/>

Francis Yuan - <http://halikon.wordpress.com/>

AJ Mandula - <http://andrewmandula.wordpress.com/>

David Gay - <http://oddshocks.com>

Stephen Jacobs - <http://gryphonscratches.blogspot.com/>

Remy DeCausemaker - [@remy_d](#)